projection optical system and a substrate stage for scanning the substrate in the direction perpendicular to the optical axis, and causes the mask stage and the substrate stage to scan at a speed ratio corresponding to a projecting magnification of said projection optical system; [and]

a first measuring system for measuring a position of the mask within a plane perpendicular to said optical axis;

a second measuring system for measuring a position of the substrate within a plane perpendicular to said optical axis; and

an adjusting system for moving the mask to decrease a positional deviation between the mask and the substrate, independently of scanning of the mask which is performed by said scanning system during the scanning exposure, wherein said adjusting system includes a finely movable stage for relatively moving the mask on said mask stage, a driving member for finely driving said finely movable stage in the direction perpendicular to said optical axis, and a controller for controlling the driving member in accordance with signals from said first and second measuring systems.

13. (Amended) An apparatus according to claim [12] 9, wherein

said first measuring system includes a rotational angle detecting device for detecting a rotational angle of the mask within the plane perpendicular to said optical axis.

15. (Amended) A scanning exposure apparatus for projecting a pattern image of a mask onto a sensitive plate through a projection optical system in a scanning manner, the exposure apparatus comprising:

(a) a plate stage for scanning the plate in at least one-dimensional direction under said projection optical system for the scanning exposure;

(b) a first mask stage for scanning the mask in at least said one-dimensional direction above said projection optical system for the scanning exposure;

(c) a second mask stage for finely moving the mask on said first mask stage in each of translational and rotational directions;

(d) a first driving system for synchronously driving said plate stage and said first mask stage with a predetermined velocity ratio for the scanning exposure, wherein said first driving system includes a mask driving unit for moving the first mask stage and a plate driving unit for moving said plate stage;

(e) a detecting system for detecting a positional deviation amount between the mask and the plate in a real time manner during the scanning exposure; and

(f) a second driving system for driving said second mask stage to decrease the detected deviation amount during the scanning exposure, while said plate stage and said first mask stage are moved by said first driving system.

29. (Amended) A scanning exposure apparatus for projecting a pattern image of a mask onto a sensitive plate through a projection system having a predetermined magnification ratio in a scanning manner, the apparatus comprising:

(a) a scanning system for synchronously, relatively scanning the mask and the plate with respect to a projection field of said projection system at a velocity ratio corresponding to said magnification ratio during the scanning exposure;

(b) a finely movable stage provided on said scanning system for finely moving the mask relative to said scanning system in each of translational and rotational directions;

(c) a detecting system for detecting a positional deviation amount between an ideal positional relation and an actual positional relation of the mask and the plate during the scanning exposure, wherein said detecting system includes a first interferometer system to measure positional information of the mask and a second interferometer system to measure positional information of the plate, and wherein said finely movable stage has a reflection

surface, and said first interferometer system measures the positional information of the mask by applying a measuring beam to the reflection surface; and

(d) a control system for driving said finely movable stage based on said detected deviation amount in order to decrease the positional deviation of the mask and the plate.

30. (Amended) A scanning exposure method in which a pattern area of a mask is transferred onto a sensitive plate through a projection optical system in a scanning manner, the method comprising [the steps of]:

(a) irradiating the mask with a radiation having a slit shaped intensity distribution in order to project a slit image portion of said pattern area of the mask toward the plate through said projection optical system;

(b) synchronously scanning each of the mask and the plate relative to said projection optical system in a scanning direction perpendicular to a longitudinal direction of said slit image portion at a predetermined velocity ratio by using a scanning mechanism for the scanning exposure;

(c) detecting a deviation value between an ideal positional relation and an actual positional relation of the mask and the plate at a term of the scanning exposure by using a first measuring system to measure positional information of the mask and a second measuring system to measure positional information of the plate; and

(d) correcting a position of the mask determined by said scanning mechanism so as to decrease said detected deviation value by using a fine moving mechanism provided on said scanning mechanism at the term of the scanning exposure.

33. (Twice Amended) A scanning exposure method in which a pattern area of a mask is transferred onto a sensitive plate through a projection system in a scanning manner, the method comprising [the steps of]:

(a) irradiating the mask with a radiation in order to project an image portion of said pattern area of the mask onto the plate through said projection system;

(b) synchronously scanning each of the mask and the plate relative to said projection system in a scanning direction at a predetermined velocity ratio by using a scanning mechanism for the scanning exposure;

(c) detecting a deviation between an ideal positional relation and an actual positional relation of the mask and the plate at a term of the scanning exposure by using a first measuring system to measure positional information of the mask and a second measuring system to measure positional information of the plate; and

(d) correcting a position of the mask determined by said scanning mechanism for decreasing said detected deviation by using a fine moving mechanism provided on said scanning mechanism at the term of the scanning exposure.

36. (Three Times Amended) A scanning exposure method in which a pattern of a mask is transferred onto a sensitive plate through a projection system in a scanning manner, the method comprising:

(a) irradiating the mask with a radiation in order to project an image of said pattern of the mask onto the plate through said projection system;

(b) synchronously scanning each of the mask and the plate relative to said projection system by using a scanning mechanism for a scanning exposure, wherein a scanning velocity of the mask is different from a scanning velocity of the plate;

(c) detecting a positional deviation amount between the mask and the plate at a term of the scanning exposure by using a first interferometer to measure positional information of the mask and a second interferometer to measure positional information of the plate; and

(d) correcting a position of the mask determined by said scanning mechanism for decreasing said detected deviation using a fine moving mechanism at the term of the scanning exposure.

37. (Twice Amended) A scanning exposure apparatus in which a first object is moved in a first direction and a second object is moved in a second direction for scanning exposure, the apparatus comprising:

a projection system for the scanning exposure, which is disposed in an optical path of an exposure beam, the first object being provided on one side of the projection system and the second object being provided on the other side of the projection system;

a first driving system which moves the first object in the first direction, at least a part of the first driving system being on the one side of the projection system;

a second driving system which moves the first object in a plane substantially parallel to the surface of the first object while the first object is moved by the first driving system, at least a part of the second driving system being on the one side of the projection system;

a first movable member which is movable in the first direction; and

a second movable member which is movable relative to the first movable member and which holds the first object,

wherein the first object held by the second movable member is moved in the first direction by moving the first movable member using the first driving system, and the first object is moved relative to the first movable member by moving the second movable member using the second driving system.

42 ~~43.~~ (Amended) An apparatus according to claim 37, further comprising:

a detecting system which detects a relative relationship between the first object and the second object, wherein the second driving system moves the second movable member based on the detected relationship.

44 ~~49.~~ (Twice Amended) An apparatus according to claim 37, wherein at least a part of said second driving system is provided on said first movable member.

45 ~~50.~~ (Twice Amended) An apparatus according to claim 37, further comprising:

a reflective surface disposed on the second movable member; and

an interferometer, optically connected to the reflective surface, which is used for detecting positional information of the first object.

46 ~~51.~~ (Twice Amended) An apparatus according to claim 37, wherein the second driving system moves the second movable member without a weight of the first movable member.

55 ~~68.~~ (Twice Amended) A scanning exposure method in which a first object is moved in a first direction and a second object is moved in a second direction for a scanning exposure, the method comprising:

moving a first object in the first direction by using a first driving system;

shifting the first object in a plane substantially parallel to a surface of the first object by using a second driving system while the first object is moved by the first driving system, wherein the first driving system moves a first movable member, the second driving system shifts a second movable member, which supports the first object, relative to the first movable member, and wherein the first object is moved in the first direction by moving the first movable member using the first driving system and is shifted by shifting the second movable member using the second driving system; and

moving a second object in the second direction by using a third driving system.

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62 ~~80.~~ (Twice Amended) A method according to claim ~~68~~ 55, wherein at least a part of said second driving system is provided on said first movable member.

63 ~~81.~~ (Twice Amended) A method according to claim ~~68~~ 55, wherein the second driving system shifts the first object without a weight of the first movable member.

67 ~~96.~~ (Three Times Amended) A method of manufacturing a circuitry element with use of the method as defined in claim ~~68~~ 55, wherein the circuitry element is formed on a substrate by projecting a pattern of a mask onto the substrate during the scanning exposure, the substrate is one of the first and second objects, and the mask is the other of the first and second objects.

75 ~~97.~~ (Twice Amended) A method for making a scanning exposure apparatus in which a first object is moved in a first direction and a second object is moved in a second direction for a scanning exposure, the method comprising:

providing a projection system for the scanning exposure, which is disposed in an optical path of an exposure beam, the first object being provided on one side of the projection system and the second object being provided on the other side of the projection system;

providing a first driving system which moves the first object in the first direction, at least a part of the first driving system being on the one side of the projection system;

providing a second driving system which moves the first object in a plane substantially parallel to a surface of the first object while the first object is moved by the first driving system, at least a part of the second driving system being on the one side of the projection system;

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providing a third driving system which moves the second object in the second direction, at least a part of the third driving system being on the other side of the projection system;

providing a first movable member which is movable in the first direction; and

providing a second movable member which is movable relative to the first movable member and which holds the first object,

wherein the first object held by the second movable member is moved in the first direction by moving the first movable member using the first driving system, and the first object is moved relative to the first movable member by moving the second movable member using the second driving system.

80 ~~103.~~ (Amended) A method according to claim ~~97~~ 75, further comprising:

providing a detecting system which detects a relative relationship between the first object and the second object, wherein the second driving system moves the second movable member based on the detected relationship.

82 ~~109.~~ (Twice Amended) A method according to claim ~~97~~ 75, wherein at least a part of said second driving system is provided on said first movable member.

83 ~~110.~~ (Twice Amended) A method according to claim ~~97~~ 75, further comprising:

providing a reflective surface disposed on the second movable member; and

providing an interferometer, optically connected to the reflective surface, which is used for detecting positional information of the first object.

84 ~~111.~~ (Twice Amended) A method according to claim ~~97~~ 75, wherein the second driving system moves the second movable member without a weight of the first movable member.

52 ~~130.~~ (Twice Amended) An apparatus according to claim 37, further comprising:

a first measuring device which detects positional information of the first object; and

a second measuring device which detects positional information of the second object; and

wherein the second driving system moves the second movable member based on the positional information detected by the first and second measuring devices.

53 ~~131.~~ (Amended) An apparatus according to claim ~~130~~ 52, wherein:

said first measuring device includes a first interferometer system, and said second measuring device includes a second interferometer system.

70 ~~135.~~ (Twice Amended) A method according to claim ~~68~~ 55, wherein during movement of said first object by said first driving system, at least a portion of said second driving system moves in said first direction in order to shift said first object.

72 ~~137.~~ (Twice Amended) A method according to claim ~~68~~ 55, further comprising:

measuring positional information of the first object; and

measuring positional information of the second object,

wherein said positional information of the first object includes positional information of said first object in a direction which crosses said first direction,

said positional information of the second object includes positional information of said second object in a direction which crosses said second direction, and

wherein said second driving system shifts the second movable member based on the measured positional information of the first and second objects.

73 ~~138.~~ (Twice Amended) A method according to claim ~~68~~ 55, further comprising:

measuring positional information of the first object; and

measuring positional information of the second object,